AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in this application.

LISTING OF CLAIMS:

1. (Currently Amended) An apparatus comprising a turning mechanism which is adapted to change an orientation of a number of packaging containers in motion in a filling machine, from a first orientation to a second orientation, comprising:

a conveyor provided with at least one carrier to which at least one carrier unit is connected;

the carrier unit being rotary in relation to the carrier about a geometric axis of rotation and adapted to carry the packaging container in such a manner that the point of gravity of the packaging container during the change in orientation is substantially located on the geometric axis of rotation, [[;]] and the point of gravity of the packaging container thereby maintains substantially the same direction of movement and speed from the first to the second orientation;

the carrier unit comprises a pair of finger portions adapted to carry the packaging container; and

the packaging containers which are fed are each a packaging container having corner flaps pointing substantially straight out from sides of the packaging container, and the finger portions of the carrier unit are adapted to carry the packaging container by abutting under the comer flaps.

2. (Currently Amended) The apparatus as claimed in Claim 1, wherein the carrier comprises a first carrier member [[(30)]] and a second carrier member; at least one of the first and second carrier members being displaceable in relation to the other of the first and second carrier member in a first direction; and the carrier unit being rotatably connected to each of the first and second carrier members where each respective rotary connection is located a distance from each other in a second direction transversely of said first direction.

3. (Previously Presented) The apparatus as claimed in Claim 2, wherein the carrier unit is non-rotationally connected to a shaft which is journalled in one of the carrier members; the carrier unit being further provided with a pin which is moveable in a track provided in the second carrier member; and a mutual relationship of the shaft and the pin is such that a displacement of at least one of the carrier members in relation to the other entails a rotation of the carrier unit which corresponds to a change of orientation of the packaging container from the first to the second orientation.

4. (Previously Presented) The apparatus as claimed in Claim 3, wherein the shaft coincides with the geometric axis of rotation.

5. (Canceled)

6. (Canceled)

7. (Currently Amended) The apparatus as claimed in Claim [[6]] 1, wherein the finger portions cooperate with at least one arrest heel which is adapted to abut against ~~the~~ one fold edge of each respective corner flap.

8. (Previously Presented) The apparatus as claimed in Claim 1, wherein the carrier unit is rotated through substantially 90° so that the second orientation of the packaging containers is at right angles to the first orientation.

9. (Previously Presented) The apparatus as claimed in Claim 2, wherein the carrier members are moveable in relation to one another in that the conveyor comprises a number of tracks which each form a loop; the carrier members being guided in the tracks; and the tracks comprising switching sections which each permit at least one of the carrier members to change tracks.

10. (Currently Amended) The apparatus as claimed in Claim [[5]] 1, wherein the finger portions, while the container is located in its first orientation, point in a direction substantially transversely of the direction of transport of the containers; and the finger portions, while the container is located in its second orientation, point in a direction substantially rearwards in relation to said direction of transport.

11. (Previously Presented) The apparatus as claimed in Claim 2, wherein the carrier members are displaceably journalled on at least one shaft, said shaft being interconnected with a belt, provided for the conveyor, by way of a clamping device.

12. (Previously Presented) The apparatus as claimed in Claim 11, wherein the belt is comprised in a belt transmission which also comprises at least one pulley over which the belt is adapted to run; the carrier members being displaceably journalled on two shafts, said shafts being interconnected with said belt; and centre points of the shafts are displaced a distance (Δ_r) from a pitch line (L) of the belt in a direction substantially at right angles thereto outwards from the pulley so that the mutual spacing between the two shafts is of equal size when both the shafts are located over said pulley and when they are located in a portion of the transmission where the belt is substantially straight.

13. (Previously Presented) The apparatus as claimed in Claim 12, wherein the length of said distance (Δ_r) is the difference r_1-r_0, where r_0 is the radius from the centre of the pulley to the pitch line (L) and r_1 is calculated in accordance with the formula

$$r_1 = \frac{a}{2\sin\left(\frac{a}{2r_0}\right)}$$

where *a* is the mutual spacing between the two shafts when the belt is straight.

14. (Previously Presented) The apparatus as claimed in Claim 11, wherein the belt is a toothed belt.

15. (Currently Amended) The apparatus as claimed in Claim 14, wherein the clamping device for securing the shaft to the belt comprises a first part adapted

for whole or partial abutment in a tooth gap in the belt and in a support ~~means~~ in the shaft, said support ~~means~~ forming continuations of the tooth gap at each end thereof and in which support ~~means~~ the first part ~~may~~ is configured to be snapped down; and wherein the first part at each end is connected to a second part formed as ~~in the form of~~ a yoke element, said yoke element being adapted to surround the shaft so that there is formed a wrapping angle [[(γ)]] between abutment points of the first part in the support ~~means~~ in the shaft and abutment points of the yoke element against the shaft which is sufficiently large for ~~the~~ geometry of the shaft to ~~be capable of retaining~~ retain the clamping device in a secured position.

16. (Previously Presented) The apparatus as claimed in Claim 15, wherein the shaft is provided with at least one depression adapted to at least partly accommodate the belt and in which depression the support is ~~means are~~ placed.

17. (Currently Amended) A method of changing an orientation of a number of packaging containers in motion in a filling machine, from a first orientation to a second orientation, the packaging containers possessing corner flaps pointing substantially straight out from sides of the packaging containers, the method comprising ~~the steps of~~:

carrying a packaging container by a carrier unit which is connected to a carrier in a moving conveyor;

the carrying of the packaging container comprising finger portions of the carrier unit abutting under the corner flaps of the packaging container; and

turning the carrier unit in relation to the carrier about a geometric axis of rotation to change the orientation of the packaging container in such a manner that the point of gravity of the packaging container during the change in orientation is substantially located on the geometric axis of rotation, the point of gravity of the packaging container thereby retaining substantially the same direction of movement and speed from the first to the second orientation.

18. (Previously Presented) The apparatus as claimed in Claim 1, wherein the carrier unit is provided with a pair of finger portions adapted to carry the packaging container, and said finger portions are adapted in relation to the geometric axis of rotation such that the point of gravity of the packaging container coincides with said axis of rotation.

19. (Previously Presented) The apparatus as claimed in Claim 2, wherein the carrier unit is rotated through substantially 90° so that the second orientation of the packaging containers is at right angles to the first orientation.

20. (New) A method of changing rotational orientation of packaging containers in motion in a filling machine, the packaging containers each comprising a pair of corner flaps extending substantially straight out from sides of the packaging container, the method comprising:

engaging each of the corner flaps of one of the packaging container with a respective finger portion of a carrier unit moving together as a unit with a moving conveyor;

rotating the carrier unit moving with the conveyor while the finger portions of the packaging container are engaging the corner flaps to rotate the packaging container from a first rotational orientation to a second different rotational orientation to effect a change in orientation of the packaging container; and

the rotating of the carrier unit comprising rotating the carrier unit about a geometric axis of rotation in such a manner that the point of gravity of the packaging container during the change in orientation from the first rotational orientation to the second rotational orientation is substantially located on the geometric axis of rotation.

21. (New) The method according to Claim 20, wherein the carrier unit connects together a first carrier member and a second carrier member, the first and second carrier members being slidably mounted on a pair of shafts.